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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/715,319

11/17/2003

Fred D. Lang

11700

5085

40088

7590

04/07/2005

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EXAMINER

BARBEE, MANUEL L

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/715,319

Applicant(s)

LANG, FRED D.

Examiner

Manuel L. Barbee

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2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-68 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-7, 10-43, 47, 48, 50-53, 56 and 58-68 is/are rejected.  
7) ☒ Claim(s) 8, 9, 44-46, 49, 54, 55 and 57 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1-21-05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 21 January 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but four of the references referred to therein have not been considered. There are no copies of the two foreign patent references and the two ASME Performance Test Code documents or the relevant portions of these documents.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-7 and 10-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 and 10-43 of U.S. Patent No. 6,651,035 in view of Nevruz (US Patent No. 5,847,266). The claims of the '035 patent teach most of the limitations of the present application. Claims 1 and 2

of the present application correspond to claims 1 and 2, respectively, of the '035 patent. Claims 3 and 4 of the present application corresponds to claims 4 and 3, respectively of the '035 patent. Claims 5-7 and 10-16 of the present application correspond to claims 5-7 and 10-16, respectively of the '035 patent. Claim 17-22 of the present application correspond to claims 22, 17-20 and 21, respectively of the '035 patent. Claims 23-43 of the present application correspond to claims 23-43 of the '035 patent. The claims of the '035 patent teach quantifying the operation of a fossil-fired thermal system but not specifically the operation of a recovery boiler burning black liquor as shown in the claims of the present application. Nevruz teaches recovery boiler leak detection (Abstract, col. 1, lines 13-20; col. 4, lines 38-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of the '035 patent, to include quantifying the operation of a recovery boiler, as taught by Nevruz, because then an accurate method for quantifying the operation of the recovery boiler and detecting leaks would have been available (Nevruz, col. 1, lines 13-30).

4. Claims 47, 48, 50-53, 56 and 58-68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 13, 15-17, 24-27, 31, 33, 45, 46 and 72-75 of U.S. Patent No. 6,522,994 in view of "Performance Test Procedure: Sodium Based Recovery Units" (TAPPI Press, Atlanta Georgia). The claims of the '994 patent teach most of the limitations of the present application. Claims 47, 48 and 50-53 of the present application correspond to claims 1, 2 and 24-27, respectively of the '994 patent. Claims 56 and 58-68 of the present application correspond to claims 31, 33, 45, 46, 13, 15-17 and 72-75, respectively of the

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'994 patent. The claims of the '994 patent teach quantifying the operation of a fossil-fired thermal system but do not specifically teach quantifying the operation of a recovery boiler burning black liquor fuel. The claims of the '994 patent do not teach obtaining relationships between fuel hydrogen and fuel carbon and between fuel sodium and fuel carbon, as shown in claim 47 of the present application. The claims of the '994 patent do not teach finding the moisture-ash-free fractions of sodium, potassium and chloride, as shown in claim 50 of the present application. The "Performance Test Procedure" teaches analysis of a recovery boiler that includes measuring hydrogen, carbon, sodium, potassium and chloride (page 28, section 6.1.1; page 31, section 6.1.10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of the '994 patent to include quantifying the operation of a recovery boiler and measuring the quantity of elements, as taught in the "Performance Test Procedure", because then an accurate method for quantifying the operation of the recovery boiler and detecting leaks would have been available.

#### ***Allowable Subject Matter***

5. Claims 8, 9, 44-46, 49, 54, 55 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

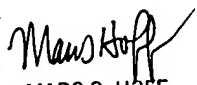
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 571-272-2212. The examiner can normally be reached on Monday-Friday from 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mlb  
April 1, 2005

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800